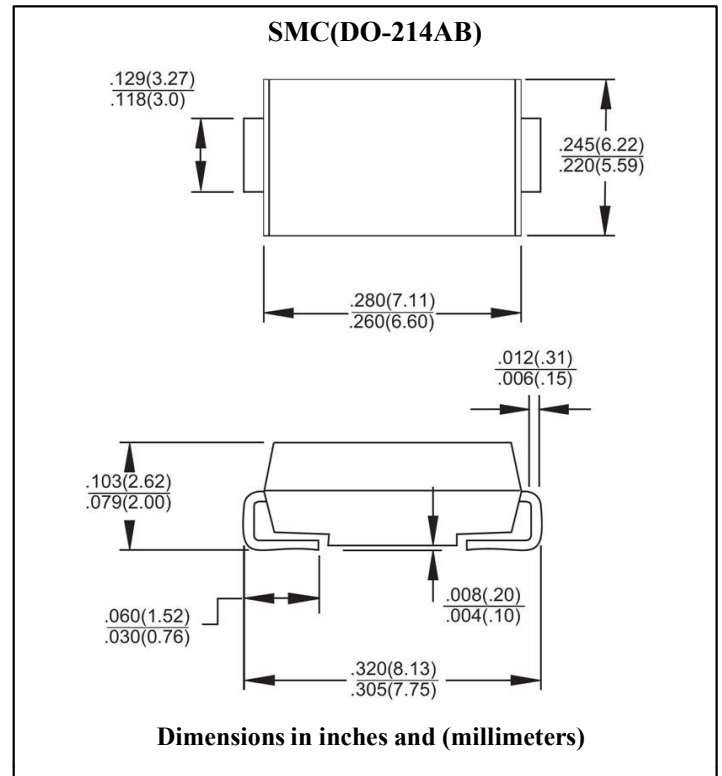
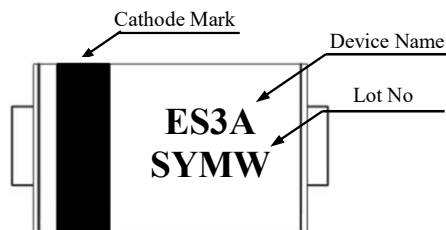


**Surface Mount Superfast Recovery Rectifiers**  
**Reverse Voltage 50 to 600 Volts Forward Current 3.0 Amperes**
**Features**

- For surface mounted application
- Glass passivated junction chip
- Superfast reverse recovery time
- Low forward voltage drop
- High current capability
- High surge current capability

**Mechanical Data**

- Case : Molded plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.21 gram

**Marking**

**Maximum Ratings & Electrical Characteristics**

Ratings at 25°C ambient temperature unless otherwise specified  
 Single phase half wave 60 Hz, resistive or inductive load  
 For capacitive load, derate current by 20%

Parameter	Symbol	ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3H	ES3J	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	350	420	V	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V	
Maximum Average Forward Rectified Current	$I_F(AV)$	3.0								A	
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	100								A	
Maximum Instantaneous Forward Voltage @ 3.0A	$V_F$	0.95			1.3		1.7			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10								uA	Ta=25°C
		500								uA	Ta=100°C
Maximum Reverse Recovery Time	$t_{rr}$	35								us	Note 1
Typical Junction Capacitance	$C_J$	45				30				pF	Note 2
Typical Thermal Resistance	$R_{th(j-a)}$	47								°C/W	Note 3
	$R_{th(j-l)}$	12								°C/W	
Operation Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150								°C	

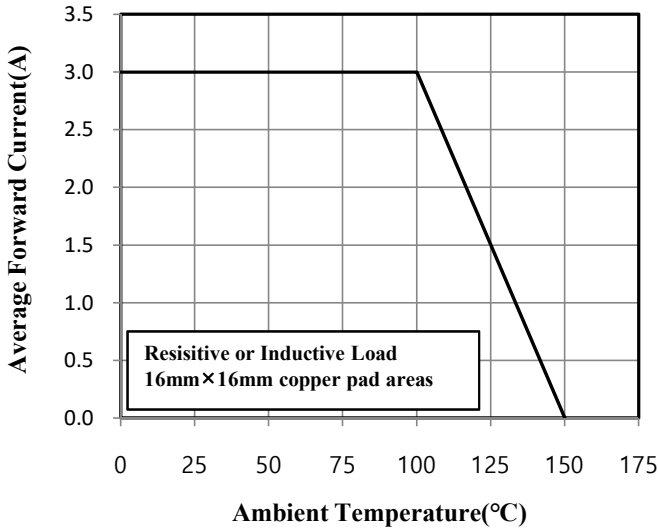
Note 1. Reverse Recovery Time Test Conditions :  $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$

Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.

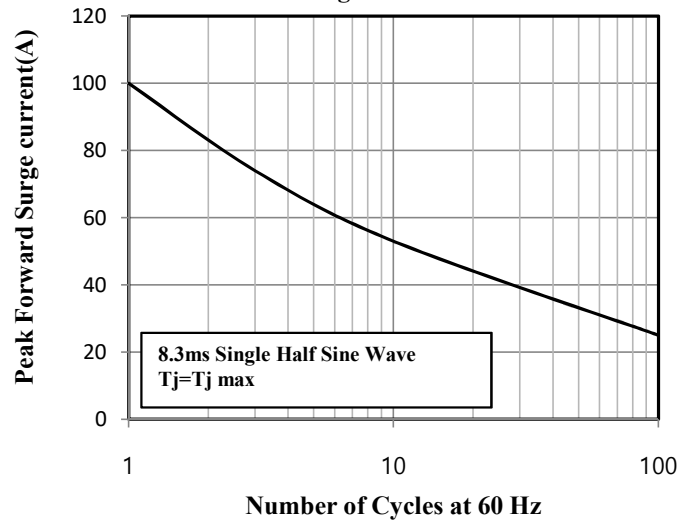
Note 3. Measured on P.C.Board with 0.6" × 0.6" (16mm×16mm) Copper Pad Area.

**Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)**

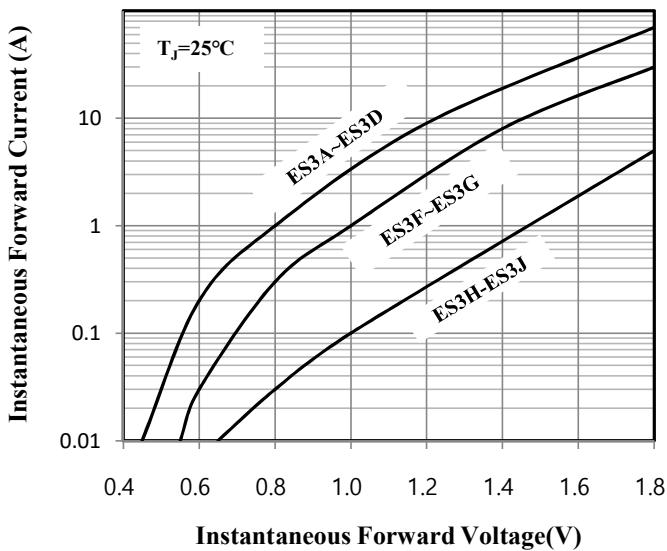
**Fig.1 Forward Current Derating Curve**



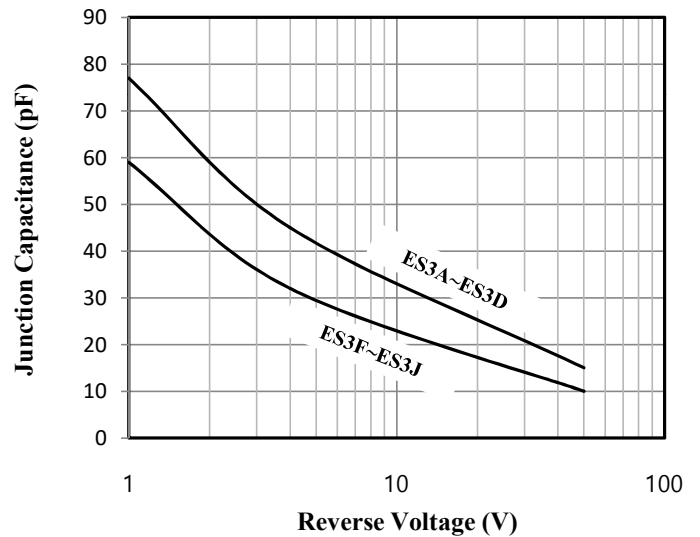
**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



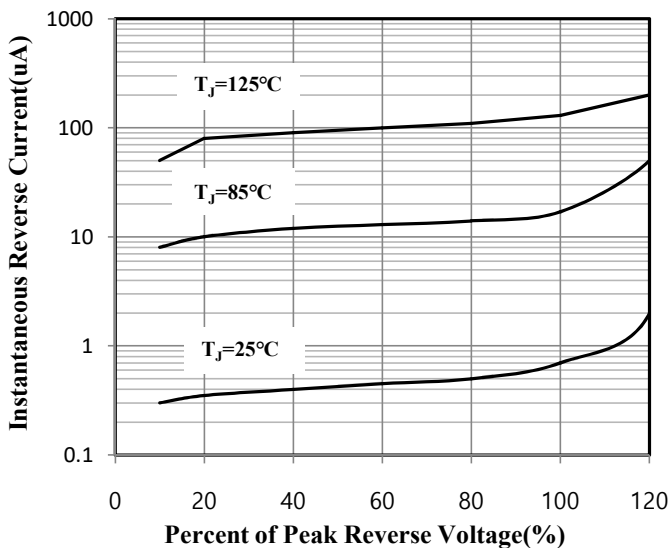
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Typical Reverse Characteristics**



**Fig. 6 Reverse Recovery Time Characteristic and Test Circuit Diagram**

